**Soils – What are they?**

Purpose

Observe soil samples to determine similarities and differences in their composition.

Objectives

Identify the major components of a soil sample.

Analyze the physical differences among soil samples.

Recognize differences in soil structure.

Materials

soil samples magnifying glass

Procedure and Observations

1. Obtain a soil sample.
2. Observe the soil carefully and answer the questions below.
   1. Describe the location where the sample was collected.
   2. Describe the color of the soil sample.
   3. What does the soil sample smell like?
   4. What does the soil sample feel like?
   5. Does the soil sample contain any plants or animals? Describe them.
   6. Use a magnifying glass to determine the structure of the soil. What structures are present? Draw a picture of each.
   7. Use the magnifying glass and describe the organic matter.
   8. Air and water make up about half the soil sample. Where are the air and water found?
3. Trade samples with another lab group. Examine the new sample, and answer the same questions again for the new sample.
4. Continue to trade samples until you have seen all soil samples.

Analysis

1. Does the amount of water that a soil can hold change? Why?
2. How are the samples different from one another?
3. Which sample do you think would be best for growing plants in? Why?
4. Which sample do you think would be the worst for growing plants in? Why?